

Management Quality Assurance System in Education: The Experience of Malaysian Schools*

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Abstract

This study seeks to document the experience of five Malaysian government secondary schools which had been awarded the prestigious quality assurance management system MS ISO 9002:1984 certificate between the years 1998 and 2001. Several factors were found to have contributed to the successful certification effort of these schools. Prominent among these were leadership of school principals, dedication of a core group of teachers and the assistance rendered by external consultants as well as local education authorities. The scope of MS ISO 9002 certification in all the schools did give focus to the core business of schooling i.e. teaching and learning. However, teachers were unhappy of the new system because of the increase in workload, especially with respect to record keeping. It was found that management tended to emphasise more on adherence to work procedures and instructions rather than on continual improvements and corrective actions. On the plus side, it was found that the schools did put in greater effort towards developing a more effective system of monitoring classroom teaching and learning activities.

The study finds that teachers in general were rather ambivalent of the benefits of the quality system. Many agree that there is greater sense of work orderliness with the new system. However many expressed reservations on the efficacy of the system in contributing to improvement in pupils' academic performance. In fact indications were that at the early stages of document preparation or later, during the internal audit examinations, teaching and related activities tended to be given low priority. Teachers in general, were nonplussed at the prospects of ISO certification extension. At the time of the study, a new set of ISO standards namely the MS ISO 9001:2000 came into existence. None of the schools were however, making any effort to prepare for the changeover. In fact, one school had already officially abandoned the system.

Introduction

This study was focused on the implementation of the international ISO 9000 quality assurance standards in Malaysian schools. In 1995, the Malaysian government made a policy decision to incorporate ISO 9000 in the public sector to improve productivity and enhance service standards. On 11 July 1996 an official circular on the implementation of ISO 9000 in the government sector was issued (Jabatan Perdana Menteri, 1996). Another circular followed the next year, which provided further clarification on the subject (Jabatan Perdana Menteri, 1997).

In Malaysia the ISO 9000 standards are styled as MS ISO 9000:1994 in which the letters MS stand for Malaysian Standards and the attached year reflecting the year the standards were issued by the ISO international body in Geneva. Organisations had the choice of three types of certificates, namely, ISO 9001, 9002 or 9003. ISO 9001 standards cover the three areas of product design, production and delivery/installation.

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The ISO 9002 standards cover only two areas i.e. production and delivery/installation and the third standards cover only the area of delivery/installation

The Malaysian government in the initial stages planned for 781 government bodies to be certified by the end of 2000. Those identified organisations comprised of 24 ministries, 114 federal departments, 52 federal statutory bodies, 13 state secretariats, 128 district offices, 145 local authorities, 9 resident offices, 239 state departments and 57 state statutory bodies. (Musalmiah Hj. Asli, 1998). With the exception of a number of departments within the Ministry of Education, schools and educational institutions were not required to seek certification in this particular phase of implementation.

However, as events unfolded, two schools were among the early recipients of the MS ISO 9002 awards. These two schools enjoyed strong support of the Ministry of Education and were awarded the MS ISO 9002:1994 certificates on 12 August 1997. At about the same time, Institut Aminuddin Baki, a division of the Ministry of Education, was awarded the MS ISO 9001:1994 certificate. The researcher played a key role as the Management Representative at the Institute.

Up to 14 August 2001 the number of schools and educational institutions with MS ISO 9001 and MS ISO 9002 certificates stood at 22 (Unit Pemodenan Tadbiran dan Perancangan Pengurusan (MAMPU), 2001)

MS ISO 9000 Implementation and Maintenance Strategies

Successful implementation of MS ISO 9000 quality assurance system requires an organisation to develop a documented system which meets ISO 9000 standards through the adequacy as well as the compliance auditing processes. The documented system consists of the Quality Manual and work procedures and instructions. These documents need to satisfy the prescribed 20 elements of ISO 9000 standards. Certification is valid for 3 years with the proviso that the organisation is able to show proof, at least annually, that procedures and standards are strictly adhered to. Organisations need to pay a fee for certification. In the case of the schools studied they were not required to do so by MAMPU, the government certifying authority.

Quality Procedures on Teaching and Learning Activities

MS ISO 9000 certification denotes assurance of quality standards for management activities rather than outputs. The MS ISO 9000:1994 system allows organisations to define the scope of activities to be covered in the system in two ways. One is through the type of certification sought, namely MS 9001, MS 9002 or MS 9003. The other is through a demarcation of specific areas of activity. For instance, a school can limit the scope of certification just to the area of teaching and learning.

However, if this quest for ISO 9000 certification is to be meaningful and worthwhile, organisations should accept the challenge of actually addressing those processes deemed to be their core business activities. In the case of schools the core processes are those related to teaching and learning activities (Hoy W. K & Miskel C. G., 2001).

The success of the quality assurance system depends heavily on top management commitment and staff support. It is critical that the staff is duly

consulted not only in the formulation of procedures, but also on the embedded standards. Work procedures and instructions developed must not be a source of additional burden or confusion or incorporate standards that the staff disagrees with. Otherwise, implementation may actually lead to sub-optimisation of performance (John Seddon, 2000).

The Benefits of MS ISO System

Neil Moreland and Michael Clark (1998) observed that ISO 9000 had (a) assisted managers and staff in organisations to cope more confidently with their situations; (b) established patterns of working and thinking in institutions, examining issues, problems and solutions; (c) brought about greater collegiality; and, (d) made everyone become more accountable to themselves as well as to everybody else in the organisations.

They also reported claimed benefits by respondents in their study to be as follows:- (a) made people more aware of the work they have to do and the effect it had on others in the institution, especially their internal customers; (b) establish more realistic goal setting; (c) helped to identify areas for improvement; and, (d) clearly defined roles and responsibilities which help to settle new staff into their jobs and provide continuity during staff changes.

However, Neil Moreland and Michael Clark noted that ISO 9000 also had negative social costs. One such cost was the sense of exclusion by some staff. Other social costs are the increase in bureaucracy, and an impersonal feeling created in the institution by the new system. Staff had to adhere to the procedures and work instructions while some staff complained that they had to do extra work.

John Seddon (2000) suggested 10 arguments against ISO 9000. Several arguments, which the researchers use for guidance in this study, are as follows: - (a) procedures written by people who were not conversant with the actual work; (b) organisations ignore documented procedures until just prior to assessment; (c) when people are subjected to external controls, they will be inclined to pay attention only to those things, which are affected by the controls; and, (d) discourage managers from learning about the theory of variation.

Purpose of the Study

This study sought to find answers to the following questions: (1) what strategies did the schools adopt in the implementation of MS ISO 9000 system? (2) How is teaching and learning articulated in the MS ISO 9000 system? (3) What are the benefits of the MS ISO 9000 system? And, (4) what are the prospects for MS ISO 9000 system in schools?

Methodology

Data was collected in five government secondary schools in Peninsular Malaysia that had been awarded the MS ISO 9002:1994 certificates. In each school between eight to ten respondents were interviewed consisting of principals or deputy principals, senior teachers, management representatives or their assistants and

teachers. Each school's Quality Manual, quality procedures and work instructions were studied and analysed. The researcher visited all the schools during a period stretching from January 2003 till March 2004. On the average each respondent was interviewed for 45 minutes.

Research Findings

General

In the following report the five schools involved in the study are identified only by their pseudonyms which do to some extent reflect their general geographic locations within Peninsular Malaysia.

All the five schools were awarded the Malaysian Standards ISO 9002:1994 (Jabatan Perdana Menteri, 1996). None of them applied for the MS ISO 9001:1994 certification and therefore their management assurance systems did not address *Element 4.4 Design Control* requirements. In addition, they also had *Elements 4. 7: Control of Customer Supplied Product* and *4.19: Servicing* waived. The schools needed between one to two years to prepare the required ISO 9000 documents.

The number of Quality Procedures developed by all the schools ranged between 28 and 30. However the number of work instructions of Northern Secondary School and the other four schools differed markedly. Northern Secondary School had one hundred and one work instructions while for the others the number was less than ten.

Tables 2 and 3 list the titles of Quality Procedures and Work Instructions which Eastern Secondary School developed for its quality assurance system. All the other schools, with the exception of Northern Secondary School, had procedures which covered more or less similar work processes although the exact titles may differ. The format of their procedures too was nearly identical and basically the quality procedures adopted a work process approach. In contrast Northern Secondary School's procedures were developed around both specific ISO 9000 elements as well as work processes. As a result the procedures of Northern Secondary School were less straight forward compared to the other schools.

Implementation Strategies

The study finds that at each of the five schools, the respective pioneering school principals who made the decision to accept the ISO 9000 challenge played crucial lead roles. It was their vision and commitment that contributed largely to the school's eventual success in achieving certification.

All the schools were found to have volunteered to participate with varying degrees of encouragement and support from education authorities at the district, state or federal levels. The case of Northern Secondary School needs special mention here. The school was actually identified by the Ministry of Education to pioneer the MS ISO 9000 system and enjoyed high-level support. In November 1996 the Minister of Education officially launched the school's MS ISO 9002 quality assurance effort and again in August 1997, the Minister made a special trip to the school to present the MS ISO 9002:1994 certificate.

Table 1

MS ISO 9002:1994 certified secondary schools: Year and Scope of certification, Number of quality procedures and work instructions and Consultancy assistance

No	School Identity	Year of Certification / Certification Authority	Scope of Certification	Number of Quality Procedures / Work Instructions	Consultancy Assistance
1.	Northern Secondary	1997 Certification Authority: SIRIM*	6 areas; Curriculum, Co-curriculum, Student Affairs, Physical Facilities, General Admin. and Hostel administration	Quality Procedures: 29 Work Instructions: 111	Northern University of Malaysia
2.	North-Eastern Secondary	1999 Certification Authority: MAMPU	1 area: Curriculum	Quality Procedures: 29 Work Instructions: 10	MAMPU**
3.	Eastern Secondary	2001 Certification Authority: MAMPU	1 area: Curriculum	Quality Procedures: 29 Work Instructions: 6	IAB***
4	Southern Urban Secondary	2001 Certification Authority: MAMPU	1 area: Curriculum	Quality Procedures: 32 Work Instructions: 7	IAB
5.	Southern Rural Secondary	2000 Certification Authority: MAMPU	1 area: Curriculum	Quality Procedures: 30 Work Instructions: 8	IAB

* The Standards and Industrial Research Institute of Malaysia (SIRIM) is a government owned company under the Minister of Finance Incorporated.

** The Malaysian Administrative Modernisation & Management Planning Unit (MAMPU) of the Prime Minister's Department.

*** Institut Aminuddin Baki (IAB) is the educational management training division of the Ministry of Education Malaysia.

Source: MS ISO 9002:1994 quality assurance system documents of the five schools.

Table 2
List of Quality Procedures of Eastern Secondary School

No	Titles of procedures	No	Titles of procedures
1	School Policy and Curriculum Planning	15.	Administration of Student Disciplinary Cases
2	Class Time tabling	16	Student Counseling Programme
3.	Registration of New Students	17	Administration of Textbooks
4.	Student Orientation Programme	18	Internal Quality Auditing
5.	School fees collection	19	Purchasing of Goods and Services
6.	Administration of Student Registration Book	20	Budgeting for Subject Panel Activities
7.	Administration of Subject Panels	21	External Lecturers and facilitators
8.	Student Academic Performance Enhancement Programme	22	Administration of Public Examinations
9.	Cheerfulness of Learning Locations	23	Administration of Staff In-Service Training
10.	Teacher Preparation for Teaching	24	Control of Documents and Data
11.	Administration of Student Internal Assessment	25	Maintenance of Equipment and machinery
12.	Daily Relief Teacher Timetable	26	Administration of Quality Records
13.	Monitoring of Teaching and Learning activities	27	Administration of Customers Complaints
14	Preparation of Students School Leaving Certificates	28	Corrective, Preventive and Improvement Efforts
		29	Management Review

Source: MS ISO 9002 Quality documents of Eastern Secondary School

The study found that the transfer of the pioneering principals out of the schools had direct impact on the maintenance of the MS ISO 9000 system. Support for the system began to diminish and gradually the system was pushed aside. Several reasons could explain the phenomena. Firstly, the new principals did not have the same level of motivation and confidence as the pioneers had.. Secondly, the principals became aware that the system had increased teacher stress in their daily work. Thirdly, they sensed that the new documented procedures had made work more bureaucratic and had proven to be a nuisance even to the principals. A case in point was the procedure that determined how “meetings” should be carried out. The principals complained that it made the simple task of having meetings cumbersome, inflexible and actually hindered the efficiency of managerial decisions. Fourthly, they also noted that the national education authorities had not come out with a definite policy on ISO 9000 certification in schools. Superiors in the education system were perceived to have failed not only to give “official” recognition to certification effort but also to be unconcerned. These schools were left to their own devices with hardly any monitoring from authorities. It was not surprising then that when Northern Secondary School

Table 3
List of Work Instructions, Eastern Secondary School

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| <ol style="list-style-type: none"> 1. Teacher's Lesson Preparation Book 2. Annual School Calendar 3. Reservation of Media Room / materials 4. Reservation of Laboratories 5. Internal auditing 6. Writing-off of assets 7. Organising meetings |
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Source: MS ISO 9002 Quality documents of Eastern Secondary School

decided to discontinue certification there was hardly any official reaction.

In the five schools studied it was found that each had a core group of between ten to fifteen teachers who actively contributed in developing the documents, and made sure that the schools successfully negotiated the initial adequacy and compliance auditing processes. These core groups of teachers willingly volunteered their services, often working on weekends, holidays and when required even late into the early hours of the morning. The rest of the teachers were generally found to be supportive or at least not actively opposed to the project. A few though were silently skeptical of the whole scheme but nevertheless did not openly express their opposition.

In terms of the actual design of the documented procedures, the schools relied heavily on the interpretation and guidance of consultants. This was especially true in the case of Northern Secondary School that pioneered the ISO 9000 effort. The school did not have access to official guidance because the earliest official guidelines were only issued after the school had gained certification in 1997 (Jabatan Perdana Menteri 1996, 1997). That perhaps partly explains why the school decided to include six business processes for certification rather than just one business process as was the case of the other four schools. Northern Secondary School interpreted the ISO 9000 requirements and developed the required documents on its own.

In contrast the other four schools benefited from the official guidelines issued by MAMPU (Jabatan Perdana Menteri (1996, 1997). In addition, IAB which in 1997 was awarded the MS ISO 9001:1994 certificate by MAMPU, began to share its experience and expertise with various Ministry of Education departments and institutions, including schools through various outreach programmes and consultancies.

It was also found that the schools gave greater emphasis on the adherence to procedural requirements and record keeping rather than on the fulfillment of quality objectives or the promises made in their respective client charters. In addition it was also found that the quality objectives originally set for certification were retained throughout the entire three-year period of certification.

The Articulation of Teaching and Learning

As indicated in Table 1, the four schools developed their quality assurance system around the core business of teaching and learning. Northern Secondary School

did the same, but in addition included five other business processes, namely administration of co-curriculum, student affairs, physical facilities, hostel and general administration.

Table 4

List of Quality Procedures directly related to Teaching and Learning activities

1. School Policy and Curriculum Planning
2. Class Time tabling
3. Administration of Subject Panels
4. Student Academic Performance Enhancement Programme
5. Cheerfulness of Learning Locations
6. Teacher Preparation for Teaching
7. Administration of Student Internal Assessment
8. Daily Relief Teacher Timetable
9. Monitoring of Teaching and Learning activities
10. Student Counseling Programme
11. Administration of Student Disciplinary Cases
12. Administration of Public Examinations
13. Administration of Textbooks

Source: MS ISO 9002 Quality documents of Eastern Secondary School

In Tables 4 and 5, several processes of work relating to teaching and learning specific to Eastern Secondary School are listed out. The contents of these procedures and work instructions in most cases faithfully reflect work processes already in place even well before the advent of ISO 9000 certification. Similar work processes were also documented in the other schools.

One significant development arising from these ISO 9000 certification efforts was the maintenance of comprehensive system of record keeping, especially in relation to teacher classroom activities and student academic performance. In some schools, special rooms to keep these records were instituted for the first time.

However, apart from the above, no new or innovative approaches to evaluate teachers or students were attempted. For example, teachers' classroom evaluation strategies kept to the old administrative format that did not provide meaningful

Table 5

List of Work Instructions directly related to Teaching and Learning Activities

1. Teacher's Lesson Preparation Book
2. Annual School Calendar
3. Reservation of Media Room / materials
4. Reservation of Laboratories

Source: MS ISO 9002 Quality documents of Eastern Secondary School

feedback to teachers. Similarly, the strategies adopted to improve students' academic performance rely heavily on the organising of "extra classes" that most of these schools had been doing all these years.

Benefits of MS ISO 9000 quality assurance system

Nearly all respondents credited the new system for a much improved and streamlined work processes, resulting in greater efficiency and effectiveness. The often cited examples were those processes which produce tangible products, like the preparation of examination papers and student leaving certificates or those activities that required close coordination like the student orientation week, the annual school prize-giving day or the annual school sports day festivities.

Records of activities associated with the assurance system and especially those defined as "quality records" in the quality procedures were meticulously kept. Team work and team spirit were strengthened especially during the initial preparation period right through the first year of system implementation. Teachers generally felt proud of the success and thought that the image of their schools among the local community got a welcome boost as a result of MS ISO 9000 certification.

The prospects for MS ISO 9000 in schools

If the existing scenario persists the prospects of MS ISO 9000 system for schools in the country looked unpromising. The study found that one school, Northern Secondary School, had already abandoned the system. Another school, Northeastern Secondary School, whose three-year certificate validity expired in 2001 had not taken any initiative to renew certification. In the case of the other three schools the study also found system compliance to be at various stages of abandonment. In fact none of the schools carried out any systematic auditing after the first year of certification.

Teachers voiced reservations of the new system on several issues. One was that the system had created a new layer of bureaucracy, placing unnecessary demands especially in record-keeping. An extreme case in point was that in several schools the teachers needed to record student attendance every time they teach.

Teachers were also unhappy about the provisions in work procedures and standards which encroached on teacher autonomy and professionalism. As an example, in one school, teachers could not freely make comments on student behaviour in the students' school leaving certificate or academic report card but instead were required to select from the four prescribed standard expressions. Provisions of this nature not only undermined teachers' professionalism but unfortunately also reflected a serious misapplication of the concept of consistency as a characteristic of quality.

After the first year of operation, teachers found that some of the newly established work procedures to be cumbersome and began to question their desirability. Many teachers were at a loss to understand why they have to be subservient to such a system that other schools in the country were spared from. They began to question the wisdom of this new self-imposed bureaucracy.

Management representatives and their assistants reported that it was extremely tedious and time consuming to make changes on the work procedures. Part of the reason was the rather detailed and complex nature of the documents. The other was that they were

at a loss as to who to approach for help and that such exercise placed high demand on their professional time and energy.

These schools were generally disappointed to discover that MS ISO 9000 certification did not really enjoy a level of official patronage and recognition appropriate to such a highly publicised project of the government of Malaysia. The study found that there was no evidence of active official monitoring on the ISO 9000 system in the schools. School principals were left alone and were not held accountable for ISO 9000 system maintenance.

Generally, the data of the study indicated that while school principals and teachers agreed that the ISO 9000 system did contribute to better management in certain areas of operations, they expressed uncertainty on the contribution of the new system towards improving student academic performance levels. What they were sure of was that to some extent ISO 9000 activities did interfere with teaching and learning. For instance, before certification, teachers had to spend a lot of time preparing the documents and before each audit process they had to update multifarious records. Many teachers reported that when under pressure on these occasions, teaching and learning time were conveniently sacrificed.

Conclusion

As a conclusion to the findings of the study, the researcher would like to draw attention to three important implications. The first is in the area of policy-making. It was rather surprising to discover the absence of definite policy guidelines to support the schools in implementing the new MS ISO 9000 quality assurance system. Such oversight is actually difficult to fathom given the fact that the Malaysian government itself places high premium on such innovation in the public sector.

Another important implication of the study is the issue of the impact of MS ISO 9000 quality assurance system on student academic performance. The study seemed to indicate that teachers and principals were rather doubtful of the system's ability to improved student academic performance. The researcher feels that such sentiments arise principally due to the way in which the documented system was interpreted and implemented. It should be noted that the MS ISO 9000 quality assurance system draws inspiration from many concepts and practices associated with the total quality management movement. One of these important practices is continual improvement. The documented system should be flexible and able to incorporate new approaches and work processes with ease. But beyond these documents, students' success is dependent on a variety of factors. At the end of the day it is the ability of work processes, documented or otherwise, to address all these factors successfully that would make a difference.

The third major implication of the study is on the need to gain staff support for any change effort in organisations. Staff needs to be convinced of the need for such a change. They should not feel burdened by it and more importantly, in the case of school teachers, any change should not be at the expense of teacher professional prerogatives.

References

- Ahmad Marican Othman (1997). *Quality and Challenges of Education Innovation: The Implementation of TQM/ISO9000 in Two Schools in Perlis*. A Briefing paper presented at the Ministry of Education Malaysia Effective Management Committee Meeting on 26th September 1997.
- Chorpha Supradith Na Ayudhya (2001). *ISO 9000 in Thai Private Schools: Case Studies*. A Paper presented in a parallel session of the SEAMEO Educational Congress, Bangkok Thailand.
- Hoy, W. K. & Miskel, C. G. (2001). *Educational Administration. Theory, Research, and Practice*. (6111. Ed.). Boston. McGraw Hill.
- Jabatan Perdana Menteri (1996). *Pekeliling Kemajiian Pentadhiran Awam (PKPA) Bilangan 2 Tahun 1996 - Garis Panduan Bagi Melaksanakan ISO 9000 Dalam Perkhidmatan Awam*. Kuala Lumpur. Percetakan Nasional Malaysia Berhad.
- Jabatan Perdana Menteri (1997). *Surat Pekeliling Kemajuan Pentadbiran Awam Bil. 1 Tahun 1997 - Panduan Tambahan Mengenai Pelaksanaan MS ISO 9000 Dan Skim Pensijilan Sistem Kualiti Oleh Agensi Kerajaan*. Kuala Lumpur. Percetakan Nasional Malaysia Berhad.
- Jabatan Perdana Menteri (2002). *Pekeliling Kemajiian Pentadhiran Awam, Bil. 2 Tahun 2002 - Garis Panduan Bagi Melaksanakan ISO 9000:2000 Dalam Perkhidmatan Awam*. Retrieved from <http://www.mampu.gov.my/mampu/bm/Circulars/BM/SPKPA2002.pdf>
- Lee Peng Tan, Lim-Teck Sia, Gilbert, ISO 9000 (2001). The answer for Total Quality Management implementation? The Malaysian Case, *Total Quality Management, March 2001, Vol.12, Issue 1*, p223-230
- Musalmiah bt. Hj. Ali (1998). Entire Malaysian Civil Service Adopts ISO 9000, *ISO 9000 News. Vol. 7 No. 1 January/February 1998*. Retrieved from <http://www.mampu.gov-my/Publications/BuletinISO/, 1998/Adopts.htm>
- Norman Mariun (Undated). *Assuring Quality in Engineering Education via Implementation of ISO 9000*. Kuala Lumpur, Department of Electrical and Electronic Engineering, University Putra Malaysia. Retrieved from <http://www.isgeasy.org /quality%2Qin%engineering%20education.htm>
- Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia (MAMPU) (2001). *Pelaksanaan MS ISO 9000 Dalam Perkhidmatan Awam*. Retrieved from <http://www.mampu.gov.my/Pemodenan/ISO/ISO.htm>